



NOTICE: The Iowa Leading Indicators Index (ILII) underwent an annual update between the release of the June and July 2014 reports, decreasing the level of the ILII for the most recent months of the index.

A revised historical series for the ILII and its components are also available on the Department's website. Please select the link entitled *Historical ILII Series*.

To read more about the changes to the ILII, please refer to the following report *Iowa Leading Indicators Index: Eighth Annual Assessment and Update* available on the Department's website September 8, 2014.



Iowa Leading Indicators Index July 2014 Report

Released September 5, 2014

The Iowa Leading Indicators Index (ILII) increased to 109.3 (100=1999) in July 2014 from a revised 109.2 in June. The Iowa non-farm employment coincident index recorded a 0.08 percent rise in July, which extends the streak of employment gains to 46 consecutive months.

The ILII's value increased in July for the tenth consecutive month, rising 0.1 percent from June. During the six-month span through July, the ILII increased 1.5 percent (an annualized rate of 3.1 percent). The six-month diffusion index was 75.0 with only two of the eight components (new orders index and yield spread) experiencing an increase of less than 0.05 percent over the last half a year.

In July, four of eight Iowa Leading Indicators Index components contributed positively. The positive contributors were the agricultural futures profits index, diesel fuel consumption, average weekly manufacturing hours, and average weekly unemployment claims (inverted). The new orders index, national yield spread, Iowa stock market index, and residential building permits were the four components that contributed to the index negatively.

Figure 1. Iowa Leading Indicators Index and Iowa Non-Farm Employment Coincident Index: January 1999-July 2014

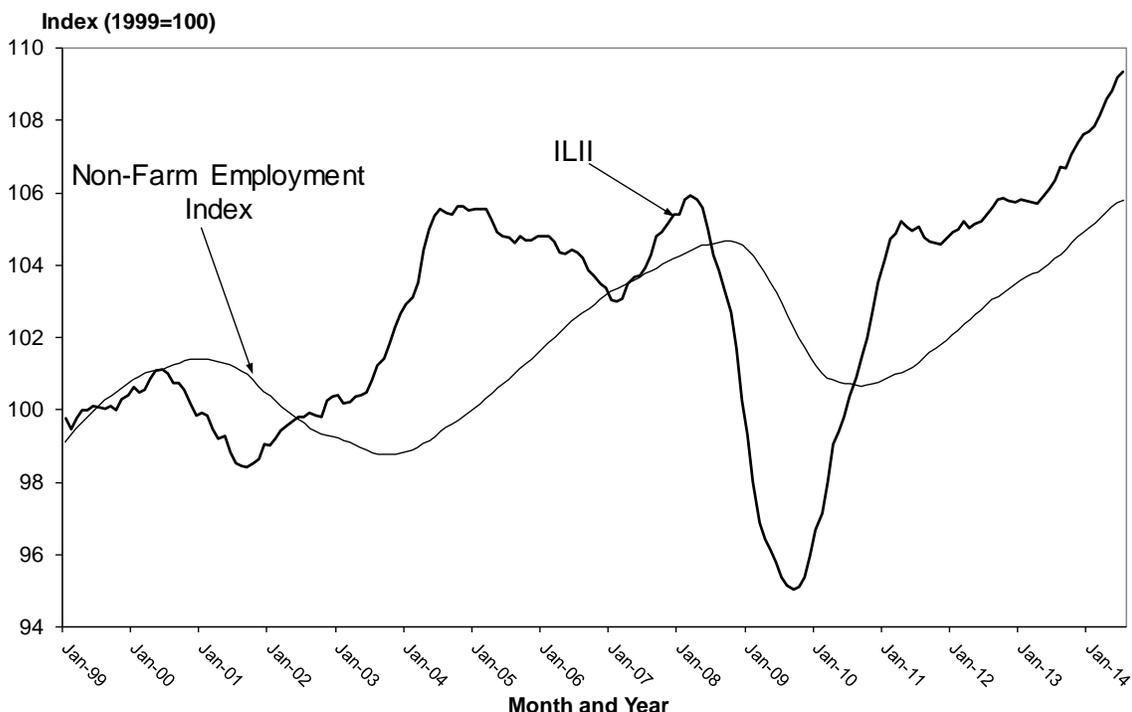


Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2014					
	February	March	April	May	June	July
ILII	107.8	108.2	108.6	108.8	109.2	109.3
Percentage Change ^a	0.1%	0.3%	0.4%	0.2%	0.4%	0.1%
Diffusion Index ^b	37.5	75.0	75.0	68.8	87.5	56.3

Six-Month Values	Aug to	Sept to	Oct to	Nov to	Dec to	Jan to
	Feb	Mar	Apr	May	June	July
ILII						
Percentage Change	1.1%	1.4%	1.5%	1.3%	1.5%	1.5%
Annualized Percentage Change	2.1%	2.8%	2.9%	2.6%	2.9%	3.1%
Diffusion Index	81.3	75.0	87.5	75.0	75.0	75.0

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced September 3, 2014.

a. Percentage changes in the ILII do not always equal changes in the level of the ILII due to rounding.

b. A diffusion index measures the proportion of components that are rising based on the actual changes (not the standardized contributions to the ILII). Components experiencing increases greater than 0.05 percent are assigned a value of 1.0, components that experience changes less than an absolute value of 0.05 percent are assigned a value of 0.5, and components experiencing decreases greater than 0.05 percent are assigned a value of 0.0.

Table 2. Iowa Leading Indicators Index Components: Six Month Overview

Component Series Monthly Values ^a		2014					
		February	March	April	May	June	July
AFPI ^b	↑ ^c						
Corn Profits (cents per bushel)		102.8	91.1	86.5	78.6	71.2	62.9
Soybean Profits (cents per bushel)		285.6	284.0	293.6	298.0	301.8	298.9
Hog Profits (cents per pound)		24.3	28.2	32.0	34.6	37.0	40.0
Cattle Profits (cents per pound)		-6.5	-4.6	-2.5	-0.6	2.0	5.2
Iowa Stock Market Index (10=1984-86)	↓	95.57	100.33	101.25	102.43	105.55	104.54
Yield Spread (10-year less 3-month)	↓	2.66	2.67	2.68	2.53	2.56	2.51
Residential Building Permits	↓	886	893	934	914	939	924
Average Weekly Unemployment Claims ^d	↑	3,204	3,214	3,196	3,161	3,121	3,103
Average Weekly Manufacturing Hours	↑	41.63	41.71	41.73	41.81	41.87	41.94
New Orders Index (percent)	↓	68.7	68.7	68.3	68.2	68.2	68.0
Diesel Fuel Consumption (mil gallons)	↑	57.67	57.86	58.17	58.59	58.67	58.86

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced September 3, 2014.

a. For all component series except for the yield spread and the Iowa stock market index, the values represent 12-month backward moving averages.

b. The agricultural futures profits index is computed as the sum of the standardized symmetric percent changes in the four series, each weighted by the commodity's annual share of Iowa cash farm income (updated September 3, 2014).

c. Arrows indicate the direction of the series' contribution to the ILII for the latest month.

d. Changes in average weekly initial unemployment insurance claims are inverted when added to the ILII, thus a negative change in the series contributes positively to the index.

ILII Components

- **Agricultural futures profits index:** Composite measure of corn, soybean, hog, and cattle expected profits, measured as the futures price less estimated breakeven costs, weighted by the respective share of Iowa annual cash receipts. Changes are calculated based on a 12-month moving average. During July this component contributed 0.10 to the index with strong gains for hogs and cattle. Compared to last year, corn prices are down 22.3 percent, and soybean prices fell 12.5 percent; in contrast prices for hogs jumped 28.9 percent and cattle prices rose 25.9 percent.
- **Diesel fuel consumption:** Number of taxable gallons of diesel fuel sold in Iowa. Changes are calculated based on a 12-month moving average. Diesel fuel consumption increased 4.0 percent between July 2013 and 2014, causing the 12-month moving average to rise to 58.86 million gallons from 58.67 in June, and contributing 0.06 to the ILII value.
- **Average weekly manufacturing hours:** Weekly average of hours worked in the manufacturing sector in Iowa. Changes are calculated based on a 12-month moving average. With an increase of the 12-month moving average to 41.94 in July 2014 from 41.87 in June 2014, this component contributed 0.05 to the ILII value. July 2014 hours were 41.9, which is 0.9 hours above the July 2013 value and historical average of 41.0 (1996-2013).
- **Average weekly unemployment claims:** Weekly average of initial claims for unemployment insurance in Iowa. Changes are calculated based on a 12-month moving average and are inverted when added to the ILII. This component contributed 0.02 to the ILII value. The 12-month moving average of claims fell to 3,103 with unemployment claims 7.7 percent below July 2013 claims, yet 21.0 percent below the average historical claims for July (1987-2013).
- **New orders index:** Diffusion index measuring the share of purchasing managers in Iowa reporting increases in orders received for manufacturing output. Changes are calculated based on a 12-month moving average. The monthly value of the index decreased to 70.5 in July from 77.4 in June. Likewise, it was down from 72.9 one year ago. The resulting small drop in the 12-month moving average of the new orders index contributed -0.01 to the ILII.
- **Yield spread:** Difference between the yield on 10-year Treasury bonds and 3-month Treasury bills. During July, the yield spread decreased to 2.51 percent as the long-term rate decreased 6 basis points while the short-term rate decreased 1 basis point. For the month, the yield spread contributed -0.02 to the ILII.
- **Iowa stock market index:** Capitalization-weighted index of 33 Iowa-based or Iowa-concentrated publicly-traded companies. During July 2014, 14 of the 33 companies gained value, including 4 of the 11 financial-sector companies. The stock market index decreased to 104.5, contributing -0.02 to the ILII value.
- **Residential building permits:** Number of total permits issued in Iowa for the construction of residential housing units. Changes are calculated based on a 12-month moving average. For July, this component contributed -0.06 to the ILII with the 12-month moving average decreasing from June to 924. July 2014 permits were 16.0 percent lower than July 2013 and 11.6 percent below the historical average for July (1998-2013).

Table 3. ILII Components and Standardization Factors for FY 2015

Iowa Leading Indicator Index Components	Standardization Factor
Agricultural Futures Profits Index	0.046
Iowa Stock Market Index	0.018
Yield Spread	0.332
Residential Building Permits	0.035
Average Weekly Unemployment Claims	0.034
Average Weekly Manufacturing Hours	0.285
New Orders Index	0.064
Diesel Fuel Consumption	0.186

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced September 3, 2014
The standardization factors are the inverse of the standard deviation of the month-to-month changes in each component over the January 1999 to June 2014 period. These factors equalize the volatility of the contribution from each component and are normalized to one. The month-to-month changes are based on 12-month backward moving averages for all components except the yield spread and the Iowa stock market index. The yield spread and new orders index changes are simple arithmetic changes; month-to-month changes for the rest of the components are computed as symmetric percentage changes. The factors are updated annually during August.

Comments

The Iowa Leading Indicators Index (ILII) is designed to forecast the future direction of economic activity in the state of Iowa. The techniques used to build the ILII follow those used by The Conference Board to construct the national Leading Economics Index (LEI) prior to the 2001 revisions. A one-month movement in such an index does not produce a clear signal, rather it is necessary to consider the direction of the index over several consecutive months. A contraction signal in the ILII is considered reliable when two conditions are met: 1. The index declines by at least two percent over a six month period (using an annualized rate); and, 2. A majority of the individual components decline over those six months (the six-month diffusion index less than 50.0).

The Iowa non-farm employment coincident index measures the change in non-seasonally adjusted, total non-farm employment in the state of Iowa. Changes are based on a 12-month moving average of employment and are computed as symmetric percentage changes. The index is a representation of overall economic activity in Iowa.

The employment index and the ILII are constructed to have a value of 100 in the year 1999.

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